

### **REMARKS**

Claims 3-10 and 13-16 are pending in the application. Claims 3, 4, 5, 6, 13 and 15 are independent. Claims 4, 6, 8, 10 and 13-16 have been deemed allowable, and claims 7 and 9 were objected to, but were deemed allowable if rewritten in independent form including all of the limitations of the base claim and intervening claims. Claims 3 and 5 were rejected. By this Amendment, applicants have amended claims 3 and 5, and added new claims 17-20. The undersigned wishes to thank the Examiner and his Supervisor for the courtesies extended during a telephonic interview conducted December 7, 2004.

### **Allowable Subject Matter**

Applicants note with appreciation that, in the office action, claims 4, 6, 8, 10 and 13-16 were deemed allowable, and claims 7 and 9 were objected to, but were deemed allowable if rewritten in independent form including all of the limitations of the base claim and intervening claims. In addition, applicants note that they do not concur with the Examiner's stated reasons for allowance, especially any reason for allowance from which it might be inferred that presently rejected claims 3 and 5 are not in condition for allowance due to the recitation of a particular fast converging algorithm. In any event, it is presently submitted that all claims are now in condition for allowance due to the amendments to claims 3 and 5, thus negating the need to amend objected-to claims depending therefrom.

### **Amendments to the Specification:**

Applicant respectfully submits corrections to the specification to correct typographical errors identified in certain formulas. Specifically, a lower case italic "e" found in

formulas 11, 58, 67 and A20 has been changed to a non-italic lowercase “e”. It is respectfully submitted that this typographical error is correctable and represents no new matter in that the explanation for the use of a non-italic “e” is explained in the text set forth accompanying formula 11, which indicates that vector sums are shown by the variable  $e_n$  ...etc. The typographical error in Formula 11 failed to reflect the non-italic “e” as differentiated from the italic  $e$ . It is respectfully submitted that from the context of the application, especially in that italic “ $e_n$ ” is identified in formula 10 as the residual echo signal, which is not a vector quantity. Thus, in formulas where the vector quantity is utilized the italic “ $e$ ” has been replaced appropriately.

**The Rejections Under  
35 U.S.C. § 103(a)**

Claim 3 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Kanemasa in view of U.S. Patent No. 5,951,625 to Duttweiler. Applicants respectfully submit that this rejection is no longer tenable. Claim 5 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Kanemasa in view of U.S. Patent No. 5,428,562 to Gay. Applicants respectfully submit that this rejection is no longer tenable as well.

Claims 3-5 have been amended to recite that the double talk detector is also connected to said modifying means for controlling adaptation of said adaptive scaled non-linearity so as to reduce the impact of double talk on said filter by reducing divergence in a period of undetected double talk. Support for this feature is found in the specification at least at page 7, line 19 through page 8, line 20. Another supporting example is found at page 16, lines 11-20, as well as figures 3 and 4.

Neither Duttweiler, Kanemasa, or Gay, alone or in combination, nor any reference currently of record, teach such a feature. Thus, the proposed combination of Duttweiler and Kanemasa with respect to claim 3, even if permissible, and were such a combination to be made, would not contain the aforementioned feature of claim 3 as presently amended. Likewise, with respect to claim 5, with respect to the proposed combination of Kanemasa and Gay, even if proper, were such a combination to be made, the hypothetical combination would not contain the aforementioned feature as found in presently amended claim 5. Moreover, the references do not even discuss the issue of reducing the impact of double talk on a filter by reducing divergence in a period of undetected double talk, as taught and claimed in the instant application. Thus, it is respectfully submitted that the Examiner's proposed combinations have been rendered moot by the amendments to claims 3 and 5, and the rejections to claims 3 and 5 under 35 U.S.C. § 103 are no longer tenable.

Accordingly, applicants submit that claims 3 and 5 are patentable over the cited references, and respectfully request the withdrawal of the rejections to claims 3 and 5 under 35 U.S.C. § 103(a).

Claim 15 has been amended to accurately reflect the proper designation of the vector variable at the end of the equation, as per equation 58 as amended above. For clarity, the italic "e" at the end of the equation is in square brackets to show its deletion and replacement by an non-italic "e" which is underlined. This change is effected to correct the same typographical error described above in connection with the Amendments to the Specification.

Additionally, applicants have submitted new claims 17-20. Claims 17-20 contain essentially the subject matter of claims 4 and 6 and claims depending therefrom, with the newly mentioned feature described above as found in amendment to claims 3 and 5. Thus, it is respectfully submitted that new claims 17-20, which represent claims that contain allowable subject matter, and now contain an additional feature, are likewise allowable.

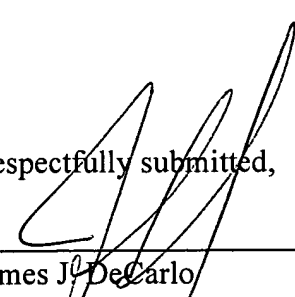
Accordingly, applicants respectfully request entry of the present Amendment, allowance of all presently pending claims, and early notification of allowance of all pending claims.

#### **CONCLUSION**

Applicants respectfully submit that all outstanding rejections have been addressed and are now either overcome or moot. Applicants further submit that all claims pending in this application (claims 3-10 and 13-20) are patentable over the prior art. Reconsideration and withdrawal of those rejections and objections is respectfully requested.

The Commissioner is authorized to charge any fee deficiencies to deposit account no. 19-4709.

Respectfully submitted,



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James J. DeCarlo  
Registration No. 36,120  
Attorney for Applicants  
Stroock & Stroock & Lavan LLP  
180 Maiden Lane  
New York, New York 10038  
(212) 806-5400